

(19)



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(11)

EP 1 443 218 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
17.11.2004 Bulletin 2004/47

(51) Int Cl.7: F15B 15/28, G05D 5/02

(43) Date of publication A2:
04.08.2004 Bulletin 2004/32

(21) Application number: 04009658.8

(22) Date of filing: 18.10.1999

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE

(30) Priority: 20.10.1998 US 104886 P
30.04.1999 US 302701

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
99970715.1 / 1 123 464

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(54) Precision sensor for a hydraulic cylinder

(57) A sensor (218) mountable within a hydraulic cylinder (200) provides a precision signal indicative of the position of the piston (212) utilizing a non-contacting electromechanical transducer. The sensor includes a flexible connector (216) attached between the cylinder piston and a converting element (220) for sensing the displacement of the cylinder piston. The converting element comprises a pick-up spool (310) coupled to the

other end of the connector and rotatable about an axis. The spool is under tension from a spring (317) coupled to the spool. A lead screw (324) engages threads on the interior of the spool, and translates along an axis when the spool rotates. A transducer (323) is disposed to sense the position of the lead screw, and provides an output signal proportional to the motion or position of the movable element. The transducer may be an LVDT or other non-contacting transducer.

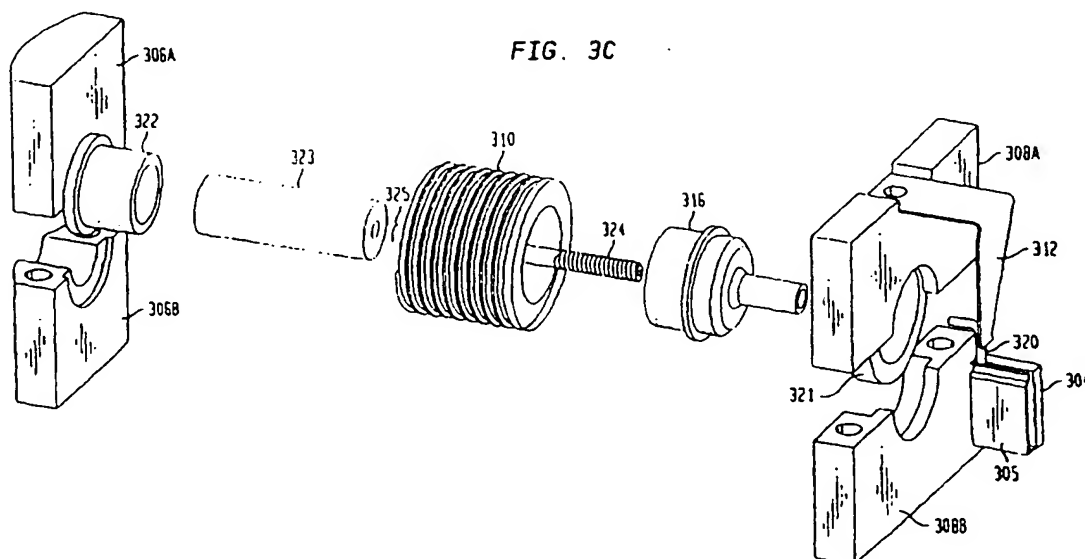


FIG. 3C

EP 1 443 218 A3

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EUROPEAN SEARCH REPORT

Application Number
EP 04 00 9658

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